

Nucleic acid adduct for in situ hybridisation to give nucleic acid sequences - comprises water soluble basic polymer and nucleic acid sequence formed by polymerase chain reaction and/or reverse transcriptase reaction

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Abstract of DE4038293

Nucleic acid adduct comprises (a) a water soluble, basic polymer, adsorbed on cells in histological or cytological preps.; and (b) a nucleic acid sequence contained in the cells and is formed by a polymerase chain reaction and/or reverse transcriptase reaction. Adducts are amplifiable and there is a bond between the two components. Basic polymer is pref. polyethylene-imine or DEAE-dextran. USE/ADVANTAGE - Can be used for in situ hybridisation to give special nucleic acid sequences. Double-stranded or single-stranded DNA or RNA, of viral or cellular origin, is bound in situ to the basic polymer and the adduct is amplified by a polymerase chain reaction and hybridised with a labelled gene probe. In an example, cervix carcinoma tissue was fixed with neutral formaldehyde soln. and embedded in paraffin. A slice of this was placed on a microscopic slide which had been pre-treated with 3-(triethoxysilyl)-propylamine. This was incubated with 5% polyethylene imine (mol.wt. 30,000-40,000) in water for 30 mins. at 37 deg.C. Glass carrier was rinsed with water and dried. Cover slide was placed over the tissue and a conventional polymerase chain reaction was carried out by dipping the prepn. in a thermostatic bath, followed by hybridisation with biotin labelled human papilloma virus type 16-DNA. (Dwg.0/0)

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